

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte VALTER NALDI

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Appeal No. 1999-1912  
Application No. 08/730,724

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HEARD: April 26, 2001

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Before CALVERT, COHEN, and STAAB, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 1-18 as amended by an amendment filed subsequent to the final rejection. At an oral hearing on April 26, 2001, Israel Gopstein, attorney for appellant, withdrew the appeal as to claims 1, 2, 5 and 7-14. Accordingly, the appeal as to claims 1, 2, 5 and 7-14 is dismissed, leaving claims 3, 4, 6, and 15-18 for our review.

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Claims 1, 2, 5 and 7-14 should be canceled by the examiner upon return of the application to his jurisdiction. MPEP § 1215.03.

Appellant's invention pertains to a panel cutting machine having a fast fit connecting means for securing a saw blade holder. A further understanding of the invention can be derived from a reading of claim 15, a copy of which is found in an appendix to appellant's reply brief.

The references of record relied upon by the examiner in the final rejection are:

Rudolf et al. (Rudolf)	5,199,223	Apr. 6, 1993
Suzuki	5,333,526	Aug. 2, 1994
Krüsi	EP 0 267 156 <sup>1</sup>	Nov. 5, 1988

Claims 3, 4, 6 and 15-18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Suzuki in view of Rudolf and Krüsi.<sup>2</sup>

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<sup>1</sup>Our understanding of this German language patent document is derived from a translation prepared in the USPTO. A copy of this translation is attached to this decision.

<sup>2</sup>A rejection of claims 1-10 under 35 U.S.C. § 112, second paragraph, made in the final rejection has been withdrawn by the examiner in light of changes made to the claims pursuant to the amendment filed subsequent to the final rejection. See

According to the examiner, Suzuki "substantially discloses the claimed invention" (answer, page 3). We note, however, that Suzuki is silent as the manner in which the saw blades 14, 33 and 34 are connected to their respective drive means, which is the crux of the claimed invention. Hence, apart from setting forth the elements of the claimed machine that appellant presumably concedes to be conventional or known<sup>3</sup>, Suzuki is of little relevance to the obviousness issue at hand. In any event, Suzuki discloses a machine for cutting boards having a first station 1 where boards 5 are successively cut into sections by saw blade 14, and a second station 17 where the sections cut at the first station are cut into a plurality of smaller sections by the saw blades 33, 34 of saws 30, 32.

Rudolf pertains to a device for clamping a disc-shaped tool such as a grinding disc 11. Looking at Figure 1 of

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the advisory action mailed August 4, 1998 (Paper No. 11).

<sup>3</sup>Note, for example, that independent claim 15 is drafted in Jepson format. By operation of 37 CFR § 1.75(e)(1), the preamble of claims so drafted constitutes "a description of all the elements or steps of the claimed combination which are conventional or known."

Rudolf, the device includes a tool spindle 20 driven by a motor 10 through drive gears 14, 16. The grinding disc 11 is held between a flange 24 of the tool spindle and a circular disc shaped screw head 92 of a retaining device 84. Screw head 92 has a cylindrical piece 96 extending therefrom that carries a threaded bolt 88. This bolt is received within the threaded end of a clamping anchor 46, which clamping anchor is in turn carried within a hollow portion of the tool spindle. The clamping anchor 46 and the tool spindle 20 cooperate to form cavities 56 and 70 connected by connecting channels 66. The cavities and connecting channels are filled with a plastic substance such a polyvinyl chloride with a relatively low degree of polymerization (col. 9, lines 25-29). When the bolt 88 of the screw head 92 is threaded into the threaded end of the clamping anchor to clamp the grinding disc between the flange 24 and the screw head 92, the volume of the cavities 56 and 70 decreases, thus compressing the plastic substance (col. 9, lines 29-55). The plastic substance "serves as elastic element which is volume-compressible within certain limits and thereby allows the grinding disc 22 to be held clamped when the retaining screw

86 is in the tightened state" (col. 9, lines 51-55). Rudolf's Figure 2 embodiment is similar to the Figure 1 embodiment, except for the addition of a piston ring 130 and Belleville washer springs 132 at the base of the cavity 134. With this enhancement,

tightening of the retaining screw 86 is not delimited by the elasticity of the plastic substance but instead upon further tightening, the Belleville washers 132 are first compressed until the piston ring 130 is supported by the stepped surface 38 via the compressed Belleville washers 132. Only after that does slight compression of the plastic substance . . . occur in order to achieve final clamping of the grinding disc 22. [Col. 10, lines 25-30.]

Krüsi pertains to a device for cutting wooden beams to length, and would appear to be the most pertinent of the references applied by the examiner against the claims. Of particular interest is Figure 6, which shows a cross section of the drive mechanism for the saw, and Figure 7, which shows open and closed perspective views of a chuck for holding the tapered shank 19 of a saw blade holder. The chuck of Krüsi comprises a conically shaped recess for receiving the tapered shank of the saw blade holder and an expandable bushing 21

prestressed to an open position mounted on the end of an axially displaceable spreader bar 20. As explained on page 19 of the translation, when the spreader bar is moved to the right the bushing opens to accept a locking pin 69 carried by the tapered shank. With the tapered shank inserted into the bushing, the spreader bar is moved to the left, causing fingers of the bushing to be cammed inwardly by camming lugs (not numbered) of hollow shaft 16. As a result, the locking pin 69 is gripped by the bushing and the tapered shank is drawn into the conically shaped recess to firmly hold the saw blade holder.

In rejecting claims 3, 4, 6 and 15-18, the examiner has found that Rudolf teaches a fast-fit tool holder connecting means comprising "a gripper (46), a conical surface (Fig. 2 at 48), a projecting element (108), a tie (46, 50) stressed by elastic means (58, 60), [and] a first and second bush (90, 96)" (answer, page 4). According to the examiner, it would have been obvious to one of ordinary skill in the art (1) to replace the unillustrated saw connection of Suzuki with a connecting means of the type shown by Rudolf, and (2) to replace Suzuki's

"second bush"<sup>4</sup> "with a flexible second bush which is expanded upon axial displacement, as taught by [Krüsi]" (answer, page 4). Implicit in the above is the examiner's determination that these modifications of Suzuki would result in a device that corresponds to the subject matter of claims 3, 4, 6 and 15-18 in all respects.

We cannot accept the examiner's position. At the outset, given the fundamental differences in construction and operation of the connecting means of Rudolf and Krüsi, it is difficult to imagine why one of ordinary skill in the art would have turned to Krüsi as a teaching reference for modifying the device of Rudolf. In particular, it is difficult to image why one of ordinary skill in the art would have found it desirable, and thus obvious, to replace the so-called "second bush" [presumably, element 96] of Rudolf with a flexible bush that is expandable upon axial displacement thereof, notwithstanding that Krüsi teaches such a construction. This is particularly so because there does

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<sup>4</sup>Presumably, said "second bush" would correspond to cylindrical piece 96 extending from circular disc shaped screw head 92 of Rudolf, which the examiner has identified as being a second bush in Rudolf.

not appear to be any cogent reason for making element 96 of Rudolf flexible so as to be expandable, as called for in the claims. Moreover, the examiner's reading of the claimed first bush and flexible second bush on elements 90 and 96, respectively, of Rudolf is a hindsight analysis of Rudolf based on appellant's teachings, especially when these claim terms are read in light of appellant's disclosure. In addition, the tool holder of Krüsi does not have both a first bush and a second flexible bush, with the second flexible bush being expandable upon axial displacement of the first bush, as claimed. Instead, Krüsi's tool holder is akin to appellant's Figure 4 embodiment, which is not the subject of the appealed claims. Finally, there is the matter of the requirement of claims 3 and 15, from which all the other claims remaining on appeal depend, calling for the expansion of the second flexible bushing furthermore causing a pressing action of the toolholder body on a surface integral with the first supporting and fast-fit connecting means. The examiner has not adequately addressed this claim limitation in his determination of obviousness.



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In light of the above, the decision of the examiner  
rejecting claims 3, 4, 6 and 15-18 as being unpatentable over  
Suzuki in view of Rudolf and Krüsi is not sustainable.

The decision of the examiner is reversed.

REVERSED

IAN A. CALVERT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
IRWIN CHARLES COHEN	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
LAWRENCE J. STAAB	)	
Administrative Patent Judge	)	

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Appeal No. 1999-1912

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APJ STAAB

APJ CALVERT

APJ COHEN

DECISION: REVERSED

Send Reference(s): Yes No  
or Translation (s)

Panel Change: Yes No

Index Sheet-2901 Rejection(s):

Prepared: January 29, 2002

Draft                  Final

3 MEM. CONF.    Y                  N

OB/HD                  GAU

PALM / ACTS 2 / BOOK

DISK (FOIA) / REPORT